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(54) Title: METHODS AND COMPOSITIONS INVOLVING S-SHIP PROMOTER REGIONS

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- 600 AGAAGTGATCTGGGCTGGACAGACTAGCTGAACTGGCCAGCTCTGGGTTTC
- 550 ATCAAGAAACCCTACCTCCATAACATAAAGTGTGATGGAGAAAGGCACCT
- 500 AATGTCAACCTCAAACCCCTACCTGCATGTGCACACACATACATCCACAC
      Areb6
- 450 CACACACACACACACACACACACACACCACACACACACACACACACAA
      Nkx3.1 Fox factor binding sites
- 400 ATAAATAAGTAAATAAAATAAATATTTAGCTCTCCAGACCAAATCTTGGT
      Oct4 Pax8
- 350 GAAACCCATGCATTTGCATTTGTGTGTGTCCTACAAACACTGAAGGTTAA
      Cdx2
- 300 GAAGCATGCTCCTTAGTAATTTATAGCAGTTTGCGTTTCCAGATTGAAA
      Gata / Lmo2
- 250 ACAGATTCTATAGGCTACACAGTGCTAAATGGATTATGCTCAGATACAGA
      Smad3/4
- 200 TTGAAAAGGATACAGATTGAAAAGGGTCGGGGCTGGGTCAGGATGACGG
      p53 Stat1/5
- 150 GCCAACTATCTTTGCCCGGGCTTGTCCTTCAGGGAAGGGTTACAGGATTTC
      Gata / Lmo2
- 100 ACCACTGGGGTGTGGCTATCTGCTGTAGGACCTGAATGTCCTGGAGTGC
      Initiator stem-SHIP region
- 50 TTTCTAGTTCCCACTAGTTGTTGAACCTTACCTTGAACCTCTGCTCCCAG
  
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(57) Abstract: The present invention concerns *s-ship* promoter and developmental decision promoter compositions and methods of using the promoter. It includes polynucleotides, vectors, host cells, and transgenic animal including a developmental decision promoter, for example, an *s-ship* promoter, controlling the expression of a heterologous nucleic acid. Methods of the invention concern methods of expressing a heterologous nucleic acid in a tissue-specific, developmental-specific, or temporally controlled manner. Other methods includes screening methods and therapeutic methods.

WO 2005/090559 A1



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